

Appl. No. 10/731,333
Docket No. 9133M
Amdt. dated 5/25/06
Reply to Office Action mailed on 3/1/06
Customer No. 27752

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for inhibiting scale, film and/or spot formation on a surface treated with an aqueous solution containing calcium and/or magnesium ions, the method comprising contacting the surface with a wash medium comprising the aqueous solution and a composition containing a functionalized material, wherein the functionalized material is derived from non-ethylenic based or vinyl based polymers or oligomers, said functionalized material being selected from the group consisting of celluloses, starches, carboxymethyl cellulose polymers, cellulose ether polymers, other modified cellulose polymers, lignins, polyvinylalcohols, polyaspartates, modified starch, modified saccharides, gums, and mixtures thereof, wherein said functionalized material comprises both sulfonate moieties and carboxylate moieties and the functionalized material satisfies Test Protocol I.

2 - 3. (Cancelled)

4. (Currently Amended) The method according to Claim 1 ~~2~~ wherein the functionalized material ~~materials~~ has a molar ratio of sulfonate moieties to carboxylate moieties ranging ~~ranges~~ from about 1:30 to about 30:1.

5. (Currently Amended) The method according to Claim 4 ~~2~~ wherein the functionalized material ~~materials~~ has a molar ratio of sulfonate moieties to carboxylate moieties ranging ~~ranges~~ from about 1:10 to about 10:1.

6. (Currently Amended) The method according to Claim 1 ~~2~~ wherein the functionalized material further comprises a nonionic functional moiety selected from the group consisting of alkoxy moieties, alkyl moieties, ester moieties and mixtures thereof ~~there-of~~.

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7. (Currently Amended) The method according to Claim 6 wherein the functionalized material has a molar ratio of sum of sulfonate and carboxylate moieties to nonionic moieties ranging ranges from about 1:20 to about 20:1.

8. (Cancelled)

9. (Currently Amended) A composition for inhibiting scale, film and/or spot formation on a surface treated with an aqueous solution containing calcium and/or magnesium ions, the composition comprising:

- a) a functionalized material produced by a process comprising functionalizing with both carboxylate and sulfonate moieties a non-ethylenic based material or a vinyl based material selected from the group consisting of celluloses, starches, carboxymethyl cellulose polymers, cellulose ether polymers, other modified cellulose polymers, lignins, polyvinylalcohols, polyaspartates, modified starch, modified saccharides, gums, and mixtures thereof ~~with a functional moiety~~ such that the functionalized material satisfies the Test Protocol I;
- b) a builder; and
- c) one or more adjunct ingredients.

10 - 11. (Cancelled)

12. (Currently Amended) The composition according to Claim 9 ~~10~~ wherein the functionalized material ~~materials~~ has a molar ratio of sulfonate moieties to carboxylate moieties ranging ranges from about 1:30 to about 30:1.

13. (Currently Amended) The composition according to Claim 12 ~~10~~ wherein the functionalized material ~~materials~~ has a molar ratio of sulfonate moieties to carboxylate moieties ranging ranges from about 1:10 to about 10:1.

14. (Currently Amended) The composition according to Claim 12 ~~10~~ wherein the functionalized material further comprises a nonionic functional moiety selected from the group consisting of alkoxy moieties, alkyl moieties, ester moieties and mixtures thereof ~~there of~~.

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15. (Currently Amended) The composition according to Claim 14 wherein the functionalized material has a molar ratio of sum of sulfonate and carboxylate moieties to nonionic moieties ranging ~~ranges~~ from about 1:20 to about 20:1.

16. (Cancelled)

17. (Original) The composition according to Claim 9 wherein the composition is an automatic dishwashing composition or a fabric care composition.

18. (Currently Amended) The composition according to Claim 9 wherein the adjunct ingredient comprises an ingredient selected from the group consisting of: ~~selected from the group consisting of~~ builders, enzymes, bleaches, anti-foaming agents, alkalinity agents, and mixtures thereof.

19. (Currently Amended) The composition according to Claim ~~18~~ 9 wherein the ~~bleaching agents are~~ bleach is selected from the group consisting of: chlorine bleaching agents, oxygen bleaching agents and mixtures thereof; and the ~~builders are~~ builder is selected from the group consisting of: phosphate builders, citric acid builders, zeolite builders and mixtures thereof;

20. (Currently Amended) A functionalized material derived from a non-ethylenic based material or a vinyl based material, wherein the functionalized material has the formula:

[Template]

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[Functional Moiety]_n

wherein the functional moiety is ~~independently selected from the group consisting of:~~ comprises a mixture of sulfonate moieties{ (,) } and carboxylate moieties ~~and mixtures thereof~~; n is from 1 to about 2000; the template is a non-ethylenic based or vinyl based polymer or oligomer such that the functionalized material satisfies the Test Protocol I.